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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,287	10/27/2003	Reiner Rygiel	21295.65 (H5680US)	2780
29127	7590	06/27/2005	EXAMINER	
HOUSTON ELISEEVA			PRITCHETT, JOSHUA L	
4 MILITIA DRIVE, SUITE 4			ART UNIT	
LEXINGTON, MA 02421			PAPER NUMBER	

2872

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/694,287

Applicant(s)

RYGIEL, REINER

Examiner

Joshua L. Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10-03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is in response to Election filed May 6, 2005. Applicant elected claims 1-13 with traverse.

#### ***Election/Restrictions***

Claims 14-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 6, 2005.

Applicant's election with traverse of restriction in the reply filed on May 6, 2005 is acknowledged. The traversal is on the ground(s) that the two inventions are not independent of each other. This is not found persuasive because claim 1 states, "the medium filled in the cavity," meaning that the cavity is filled in some manner and claim 14 states, the sample is located in a cavity," meaning that the cavity is empty of all material other than air and the sample.

The requirement is still deemed proper and is therefore made FINAL.

#### ***Drawings***

This application has been filed with informal drawings which are acceptable for

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examination purposes only. Formal drawings will be required when the application is allowed.

The drawings are objected to because the box elements in figure 1 need to be labeled in accordance with 37 C.F.R. § 1.83 (a) as stated infra. Correction is required.

Specifically, 37 C.F.R. § 1.83(a) states that in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol *or a labeled representation (e.g., a labeled rectangular box)* (emphasis added).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5 and 7-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Bewersdorf (US 2002/0105722) in view of Eastman (US 6,411,434).

Regarding claim 1, Bewersdorf teaches a confocal microscope with a sample carrier (Fig. 4) comprising a first coverslip (22) and a second coverslip (22) wherein the second coverslip carries a mirror (25) and the mirror surrounds the sample region (para. 0055; Fig. 4).

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Bewersdorf lacks reference to a cavity or a frame. Eastman teaches the use of a frame (12 and 14) to hold a first (26) and second (16) coverslip with a cavity between them (Fig. 6). Eastman further teaches a medium filled in the cavity (col. 7 lines 32-37). Although Eastman is silent as to the medium having approximately the same refractive index of the first and second coverslips, the refractive index of the Eastman medium must approximately match the refractive indices of the first and second coverslips because a significant difference between the refractive indices would cause reflection of light at the interface of the medium and the coverslip. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Bewersdorf invention include the cavity and frame of the Eastman invention for the purpose of holding the sample in place while protecting the sample from being damaged.

Regarding claim 2, Bewersdorf teaches the substrate of the coverslips being anisotropic or isotropic materials that are transparent to the wavelengths used (Fig. 4). The coverslips must inherently be either anisotropic or isotropic.

Regarding claim 4, Bewersdorf teaches the invention as claimed but lacks reference to the distance between the coverslips. The Eastman reference teaches the use of a sample as thin as possible (col. 2 lines 25-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Bewersdorf cavity be less than 50 microns as suggested by the Eastman reference for the purpose of transillumination of the specimen for without significant loss of incident light.

Regarding claim 5, Bewersdorf teaches the mirror on the second coverslip reflective for light in a wavelength range of 300-1300 nm (para. 0021).

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Regarding claim 7, Bewersdorf teaches the mirror is made of a dielectric coating (para. 0019).

Regarding claims 8 and 10, Bewersdorf teaches the invention as claimed but lacks reference to a circular sample region. Eastman teaches the use of a circular sample region (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Bewersdorf invention include the circular sample region of Eastman for the purpose of allowing ample light to pass through the viewing area to achieve a high contrast image of the sample.

Regarding claim 9, Bewersdorf teaches the invention as claimed but lacks reference to an adhesive. Eastman teaches the use of an adhesive to secure portions of the coverslip together (col. 6 lines 40-50). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Bewersdorf invention include the adhesive of Eastman for the purpose of permanently securing the coverslips to the frame.

Regarding claims 11 and 12, Bewersdorf teaches the coverslips are in the shape of a square (Fig. 4), which is a polygon with identical side lengths and a rectangle.

Regarding claim 13, Bewersdorf teaches the microscope is an interferometric fluorescence microscope (abstract).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bewersdorf (US 2002/0105722) in view of Eastman (US 6,411,434) as applied to claim 1 above, and further in view of Binnings (US 3,620,596).

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Bewersdorf teaches the invention as claimed but lacks reference to the use of quartz and glycerol. Eastman teaches the use of quartz as a means to create the coverslips (col. 6 lines 43-45). Binnings teaches the use of glycerol as a means to fill the cavity of a microscope slide (col. 3 lines 30-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Bewersdorf invention include the quartz coverslips of Eastman for the purpose of efficiently transmitting light through the coverslips. It would further have been obvious to one of ordinary skill in the art at the time the invention was made to have the Bewersdorf invention include the glycerol cavity filling medium of Binnings for the purpose of protecting the sample and allowing light to transmit through the cavity.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bewersdorf (US 2002/0105722) in view of Eastman (US 6,411,434) as applied to claim 1 above, and further in view of Aagard (US 3,720,924).

Bewersdorf teaches the invention as claimed including the use of a metal mirror (para. 0019) but lacks reference to the use of aluminum in the mirror. Aagard teaches the use of aluminum to create a mirror in a microscope (col. 9 lines 60-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Bewersdorf mirror made of aluminum as taught by Aagard for the purpose of reflecting light in the visible wavelength range.

### *Conclusion*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP



**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**